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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,125	03/22/2002	Lex P. Jansen	S63.2-10399	5949
490	7590	09/21/2005	EXAMINER	
VIDAS, ARRETT & STEINKRAUS, P.A. 6109 BLUE CIRCLE DRIVE SUITE 2000 MINNETONKA, MN 55343-9185			WEBB, SARAH K	
			ART UNIT	PAPER NUMBER
			3731	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,125

Applicant(s)

JANSEN ET AL.

Examiner

Sarah K. Webb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6-8,26-28 and 32-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6-8,26-28 and 32-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1,3,6-8,26-28, and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,443,498 to Fontaine in view of US Patent No. 5,628,787 to Mayer, and in further view of US Patent No. 5,226,909 to Evans et al., and further in view of "Rhenium and Molybdenum/Tungsten Based Alloys: An Overview of Database" by Boris Bryskin and Jan C. Carlen.

Fontaine discloses a stent structure formed of a radiopaque metal, which can be tantalum. Fontaine teaches that the metal should be "*radiopaque so that the location of the stent can be verified through fluoroscopic examination.*" The metallic frame can also be coated with polymer (PTFE) or a drug (column 5, lines 40-52). Fontaine fails to form the stent from a tungsten-rhenium alloy.

Mayer discloses another stent that includes a radiopaque wire. Mayer also states that tantalum is a good radiopaque material (column 6, lines 32-36), but also suggests that tungsten and rhenium are suitable materials for forming radiopaque stents (column 7, lines 7-9). Evans teaches that a tungsten-rhenium alloy is a good alternative to tantalum for forming radiopaque medical structures (column 7, lines 36-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the radiopaque stent of Fontaine from a tungsten-rhenium alloy, as both Mayer and Evans teach that tungsten-rhenium alloy is highly radiopaque and suitable for medical devices. The resultant stent would be made of an alloy consisting essentially of tungsten and rhenium.

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The limitations “*formed from a sheet or from a tube*”, “*the openings having been formed by removing material...*” and “*manufactured from a sheet...*” in claims 8,13, and 25 are not given patentable weight, because they are only directed to the process by which the product is made. Whether a product is patentable depends on whether it is known in the art or it is obvious, and is not governed by whether the process by which it is made is patentable.

Fontaine, Mayer, and Evans fail to state the specific composition and mechanical properties of a tungsten-rhenium alloy. In the article written by Bryskin and Carlen, which was published in the book *Molybdenum and Molybdenum Alloys, Proceedings of the Symposia Held at the 127th Annual Meeting and Exhibition of the Minerals, Metals, & Materials Society in San Antonio, Texas*; 16-19 Feb 1998, common compositions of tungsten-rhenium (W-Re) alloys are provided. The weight percent of tungsten falls within the range of 75%-99%, and the weight percent of rhenium falls within the range of 1%-25%. Inherently, the modulus of elasticity is about 400 Gpa for these common W-Re compositions. In the abstract, Bryskin states that the W-Re alloys disclosed in the paper are common (line 8). In lines 14 and 15 on page 3, Bryskin states that the W-Re alloys are very attractive for x-ray targets. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a tungsten-rhenium alloy of the compositions taught by Bryskin in the modified Fontaine stent, as Bryskin teaches that these common W-Re compositions are known to have suitable mechanical properties for forming medical devices.

Response to Arguments

Applicant's arguments filed 7/1/05 have been fully considered but they are not persuasive. Applicant argues that Bryskin does not provide sufficient evidence that the W-Re alloys are suitable for medical devices. Bryskin is not relied upon for this teaching. Bryskin is relied upon for providing examples of common W-Re compositions and mechanical properties of these compositions. In the abstract, Bryskin states that the W-Re alloys disclosed in the paper are common (line 8). In lines 14 and 15 on page 3, Bryskin states that the W-Re alloys are very attractive for x-ray targets. On the website for Rhenium Alloys, Inc. (provided in the Office Action dated 6/23/04), it is specifically stated in line 6 that tungsten-rhenium alloys are excellent for medical applications. There is sufficient motivation and evidence in the prior art to form a stent as set forth in the claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date

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of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah K. Webb whose telephone number is (571) 272-4706. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan T. Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKW

9/15/05

Julian W. Woo

JULIAN W. WOO
EXAMINER